REMARKS/ARGUMENTS

This Amendment is submitted in response to the Office Action mailed November 9, 2009, which was made final. Claims 1-27 are rejected and 28-64 are withdrawn. In this Amendment, claims 1, 15, and 27 has been amended. No claims have been added or canceled. It is respectfully submitted that the amendment does not add new matter. Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents. Applicants respectfully request consideration of the subject application as amended herein.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejects claims 1-6, 8-12, 15-18, 20-24, and 26-27 under 35 U.S.C. § 103(a) as being unpatentable over Chan, et al (U.S. Publication No. 2003/0113027, hereinafter "Chan") in view of Sirohey, et al (U.S. Patent No. 7,236,637, hereinafter "Sirohey").

Chan describes a system and method for processing JPEG2000 images. For an image of an original resolution, the image can be parsed and layers extracted to obtain the image at a lower resolution (Chan, paragraph 0137). Chan reads the header data for a codestream at the original resolution to determine the size of the image, number of layers, and number of DWT levels (Chan, paragraph 0137; Figure 6A, elements 605 and 610). The data from the header is utilized by Chan to rewrite the codestream for the original image into a new codestream corresponding to a lower resolution and target bit rate (Chan, paragraph 0137; Figure 6A, element 620).

Sirohey describes a client and server where the client may receive increasing resolutions of the same image (Sirohey, Figure 21). The client requests an image for display in a viewport of the client, and receives an image header and one or more levels of image data (Sirohey, column 22, lines 19-26). When the client subsequently desires a higher resolution version of the image, the client reads the header to determine what levels are needed to construct the higher resolution version, and requests those levels (Sirohey, column 22, lines 29-41).

Amended claim 1 recites:

> A method comprising:
> accessing header information from a multi-resolution codestream of compressed data of a first image;
> deriving one or more retrieval attributes solely from a bit distribution extracted from the header information for similarity matching between different images; and
> performing image analysis for similarity matching between the first image and a second image solely based on the one or more retrieval attributes from the bit distribution extracted from header information, wherein the one or more retrieval attributes are non-image data that describe visual attributes of the first image. (Emphasis Added)

Applicants respectfully submit that a combination of Chan and Sirohey do not describe or suggest "deriving one or more retrieval attributes solely from a bit distribution extracted from the header information for similarity matching between different images; and performing image analysis for similarity matching between the first image and a second image solely based on the one or more retrieval attributes from the bit distribution extracted from header information, wherein the one or more retrieval attributes are non-image data that describe visual attributes of the first image," as claimed.

As discussed above, Chan describes utilizing data from an image header to rewrite a codestream for an original image into a new codestream corresponding to a

lower resolution at a target bit rate (Chan, paragraph 0137; Figure 6A, element 620). With respect to deriving retrieval attributes, the Examiner cites Chan at paragraph 0137 (Final Office Action, mailed 11/9/2009, pages 3). However, in that passage, Chan states that in order to rewrite the codestream to a new resolution and bit rate "the codestream header is read where relevant information such as (i) image size, (ii) number of DWT levels, (iii) codeblock size, (iv) precinct size and (v) number of layers present, is extracted. The information is necessary for decoding packet headers and also for determining the number of codeblocks and precincts present in each resolution level (Chan, paragraph 0137, lines 14-20 [Emphasis Added]). Although Chan notes that information size, DWT levels, codeblock size, precinct size, and layers are utilized for rewriting a codestream for a single image, Chan fails to describe deriving retrieval attributes "solely from a bit distribution extracted from the header information" of an image or that the retrieval attributes are derived "for similarity matching between different images."

Furthermore, Chan states that the five items are "necessary" for rewriting a codestream, and therefore cannot describe deriving retrieval attributes "solely from a bit distribution extracted from the header information." Therefore, Chan fails to describe or suggest "deriving one or more retrieval attributes solely from a bit distribution extracted from the header information for similarity matching between different images; and performing image analysis for similarity matching between the first image and a second image solely based on the one or more retrieval attributes from the bit distribution extracted from header information, wherein the one or more retrieval attributes are non-image data that describe visual attributes of the first image." The Examiner notes these

deficiencies in Chan and therefore relies on Sirohey (Final Office Action, mailed 11/9/2009, pages 3-4).

Sirohey describes a client that requests different resolutions of a single image that is divided into resolution layers (Sirohey, column 22, lines 29-41). In order to make successive image requests for different resolution layers of the image, Sirohey notes that "system 400 may obtain the resolution characteristics of the image levels 410 through 416 by reading the header 408 in an initial or subsequent retrieval of image data from the server 402" (Sirohey, column 22, lines 38-41). The Examiner further notes that Sirohey makes decisions on resolution level retrieval by reading the number of compressed bytes for different resolution levels of the image (Final Office Action, mailed 11/9/2009, page 4). Thus, Sirohey at best describes which resolutions of a single image should be retrieved from the number of bytes in a resolution level. Applicants, however, claim in part "deriving one or more retrieval attributes solely from a bit distribution extracted from the header information for similarity matching between different images." Determining the number of bytes in a resolution level for retrieving a higher resolution data for a single image, as described in Sirohey, is silent as to deriving retrieval attributes solely from a bit distribution for similarity matching between different images, as claimed.

Furthermore, the Examiner cites Sirohey at Figure 21 and column 22, lines 30-41 as performing image analysis. In the passage, Sirohey describes that when a client subsequently desires a higher resolution version of the image, the client reads the header to determine what levels are needed to construct the higher resolution version, and requests those levels (Sirohey, column 22, lines 29-41). Reading a header to determine the number of bytes in a resolution layer of a single image, however, is completely silent

as to performing image analysis for similarity matching or that the analysis is based on the retrieval attributes derived solely from a bit distribution extracted from image header information, as claimed.

Therefore, a combination of Chan and Sirohey, taken alone or in combination, fails to describes or suggest "deriving one or more retrieval attributes solely from a bit distribution extracted from the header information for similarity matching between different images" or "performing image analysis for similarity matching between the first image and a second image solely based on the one or more retrieval attributes from the bit distribution extracted from header information, wherein the one or more retrieval attributes are non-image data that describe visual attributes of the first image."

Accordingly, Applicants submit that Chan and Sirohey, alone or in combination, fail to describe or suggest each and every element of the Applicants' invention, as claimed in claim 1. Furthermore, independent claims 15 and 27 contain similar features and limitations to those discussed with respect to claim 1, and are similarly not rendered obvious by Chan and Sirohey for at least the reasons discussed above. The remaining claims depend from one of claims 1 and 15, and add additional features and limitations. Therefore, Applicant respectfully submits, in light of the arguments advanced above, claims 1-27 are in condition for allowance and such action is earnestly solicited.

The Examiner rejects claims 13-14 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Chan in view of Sirohey and further in view of Sekiguchi, et al (U.S. Publication No. 2001/0004739, hereinafter Sekiguichi). As discussed above, with respect to independent claims 1 and 15, Chan and Sirohey fail to describe or suggest each and every feature as claimed. Sekiguchi describes extracting text information from a

document for non-visual aspects of an image (e.g., meta data related to an author, date, time, title, and locator as illustrated in Figure 4). Sekiguchi, however, is silent as to deriving retrieval attributes solely from a bit distribution for similarity matching between different images or performing image analysis for similarity matching based on the retrieval attributes, as claimed. Thus, Sekiguchi fails to remedy the shortcomings of claims 1 and 15 set forth above. Therefore, Applicants submit that a combination of Chan, Sirohey, and Sekiguchi fails to render claims 1 and 15, and thus claims 13, 14, and 25 that depend therefrom, obvious. Applicants respectfully request withdrawal of the rejection of claims 13-14 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Chan in view of Sirohey and further in view of Sekiguchi.

The Examiner rejects claims 7 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Chan in view of Sirohey, further in view of Sekiguchi and Amirghodsi (U.S. Publication No. 2006/0077408). As discussed above, with respect to independent claim 1, Chan, Sirohey, and Sekiguchi fail to describe or suggest each and every feature as claimed. Amirghodsi describes a content based image retrieval system that utilizes color feature vectors (Amirghodsi, paragraph 0009). Amirghodsi, however, is silent as to deriving retrieval attributes solely from a bit distribution for similarity matching between different images or performing image analysis for similarity matching based on the retrieval attributes, as claimed. Thus, Amirghodsi fails to remedy the shortcomings of claim 1 discussed above. Therefore, Applicants submit that a combination of Chan, Sirohey, Sekiguchi, and Amirghodsi fails to render claim 1, and thus claims 7 and 9 that depend therefrom, obvious.

Conclusion

Applicant respectfully submits that in view of the amendments and discussion set forth herein, the applicable rejections have been overcome. Accordingly, the present and amended claims should be found to be in condition for allowance.

If a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact the undersigned at (408) 720-8300.

If there are any additional charges/credits, please charge/credit our deposit account no. 02-2666.

Respectfully submitted,
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